This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

KSE 48
3.50
Am Acc

Harvard College Library

FROM THE
J. HUNTINGTON WOLCOTT
FUND

GIVEN BY ROGER WOLCOTT [CLASS OF 1870] IN MEMORY OF HIS FATHER FOR THE "PURCHASE OF BOOKS OF PERMANENT VALUE, THE PREFERENCE TO BE GIVEN TO WORKS OF HISTORY, POLITICAL ECONOMY AND SOCIOLOGY"

TWELFTH

ANNUAL ADDRESS

DELIVERED BEFORE THE

MAHONING COUNTY

AGRICULTURAL SOCIETY,

BY

HON. ELISHA WHITTLESEY,

At Canfield, Ohio, October, 1858.

CANFIELD:
JOHN M. WEBB, PRINTER—SENTINEL OFFICE.
1858.

KSE 48

HARVARD UNIVERSITY LIBRARY MAR 1 1944

Wolcott Fund

On motion of John M. Edwards, Esq., it was unanimously *Resolved*, That the society return their thanks to the Hon. Elisha Whittlesey for his able and eloquent address on this occasion; and that we request a copy for publication.

Canfield, October 20th, 1858.

In complying with the request of the Mahoning county Agricultural Society, to furnish a copy of the address referred to in the resolution, it is necessary to remark, that after most of the address was written, I declined to deliver an address at Salem, at an agricultural fair, at a day anterior to the meeting of the society in this county; but that after consulting some of the members of this society, and availing myself of their suggestion, to use there, such parts of the address prepared for this county fair as I should think proper, my declination was withdrawn. Parts of each, therefore, are the same.

Most sincerely yours, Elisha Whittlesey.

To F. G. Servis, Esq., A. P. Flaugher, Esq.

Committee of publication.

ADDRESS

Of Hon. ELISHA WHITTLESEY, delivered before the Mahoning County Agricultural Society, October, 1858.

Mr. President, Gentlemen and Ladies:—It is with much satisfaction and pleasure I meet you here to day, to mingle in your congratulations, to witness the prosperity of the country as exhibited by the agriculturalists in their stocks of cattle, horses, sheep, hogs, grains and vegetables.

Time has not permitted me to examine all the articles on exhibition. The respective committees in the discharge of their duties will report them, and aim to do justice to their merits.—A casual observer however, could not fail to notice the team of thirty-eight yoke of steers and oxen before a timber wagon collected by Henry Beardsley, John Lynn and other young men in Canfield. It entered the ground first, and in good style, each pair gently pressing forward, so that no chain was slack.—Military officers never marched a corps of men into the field for parade or battle with greater precision. The young teamsters bore the same kind of whips that were used more than half a century ago, and that no good teamster of oxen ever dispenses with. The team of fifteen yoke of oxen, furnished by Mr. Frank Henry, and by Mr. R. Mathews of Austintown, and that of fourteen yoke, belonging to Mr. M. W. Powers of Youngstown, commanded universal admiration. If these three teams had been driven to Columbus without previous notice, the citizens might have feared an effort was about to be made to remove the seat of government.

Without specially designating any animal of the different kinds, as possessing superior qualities, it gives me pleasure to say, that the exhibition of animals bred in the county, and those from other counties, is highly creditable to the owners, and to the occasion.

The wheat, corn and garden vegetables in their quality and number of samples, far exceed my anticipation.

The ingenuity, skill and industry of the females who liberally brought to the fair a portion of their labors the past year, command admiration. The landscape of Mrs. J. M. Edwards cannot be excelled in beauty and richness. Every person admired it, and was unwilling to believe it was composed of leaves and husks. It should adorn a public or private gallery of paintings in one of the cities.

The representation of pioneer life in the log cabin, out buildings, domestic animals around the cabin, or in the pens and stables, reminds every old settler, of the country as it was fifty years ago. For that group, the exhibition is indebted to Mrs. Newton and daughters of Canfield, and to Miss Harmon of Warren. The exhibition of blankets, bed spreads, and needle work is highly commendable; and it is hoped that mothers, daughters and house keepers will from this day bear in mind the next annual exhibition, and increase the specimens in number, if not excel them in beauty. The properties of a good wife, (and of course those who are qualified to enter into that endearing relation,) as delineated by the wise man two thousand eight hundred and seventy-three years ago, are the same now, as then. They consisted in part, of these: "She seeketh wool and flax, and worketh willingly with her hands. She layeth her hand to the spindle, and her hands hold the distaff." The people to whom the proverbs were then known, were required to "give her of the fruits of her hands, and let her own works praise her in the gates." This is as much our duty to do, as it was theirs; and ladies it is meet to praise you for the exhibitions presented on this occasion. This praise is not in its application restricted to the exhibition, for every one who is acquainted with the domestic circle, knows there are pressing and responsible duties that divert female care and labor to other objects. In other delineations of her character he says: "She stretcheth out her hand to the poor: yea she reacheth forth her hands to the needy. "She openeth her mouth with wisdom, and in her tongue is the law of kindness." "She looketh well to the ways of her household and eateth not the bread of idleness."

I trust there is not one of the fair sex present, who is not worthy of "praise in the gates," from some trait of character, that adorns and ennobles her.

By the kind partiality of the president and board of the Mahoning county agricultural society, I am here to address the society and the audience on the subject of agriculture. Con-

nected with the labor of tilling the earth, are various interests worthy of notice. Agricultural societies are increasing in number and importance. My belief is, that the first agricultural society in this State, if not the first west of the Allegheny Mountains, was organized in Youngstown. An anonymous notice, given at the request of several gentlemen interested in agricultural science was published in the Chronicle at Warren, on the 26th of November, 1818, requesting a meeting of the farmers of Youngstown and adjacent towns, at James Hillman's in Youngstown, on the 22nd of December following, for the formation of an agricultural society. "Farmers from a distance are requested to attend, as views are entertained that this society will embrace the agricultural interests of the whole country." That notice I have no doubt was drawn by Judge George Tod, who was enthusiastically devoted to agriculture, horticulture and gardening. If his circumstances did not permit him to accomplish on his own grounds, as much as he desired, his remarks when on the circuit, and at all times when in company with cultivators of the soil, or with those who wished information on these subjects, were freely made, kindly received, and beneficial. On the day appointed, the meeting was held. Samuel Bryson acted as chairman, and Robert Montgomery as clerk, George Tod, William Rayen, and Calvin Pease, were a committee to prepare and report articles of association. The report in due time was made, of which the 1st article was as follows: "The name of this society shall be the Agricultural Society of Trumbull county, and the objects of the society are the promotion and improvement of agriculture, rural economy, and domestic manufactures."

At the second meeting, George Tod was elected President.—The society continued in existence four years, and stimulated the farmers, or many of them, to adopt improvements in cultivation; and females vied with each other in fabricating various articles of domestic wear. The dissolution of the society was owing, I believe, to changing the places for its annual meeting. My opinion is, that this society will not come to the same fate, so long as the men and women of the present generation are alive and able to act; and my hope and belief is, that the beneficial efforts of the society will enlarge and increase, and extend to many generations after us. County and State agricultural societies have largely multiplied within the last ten years, with many beneficial effects. The social benefits should not be overlooked, for they are many, and of great interest to the community. We all need some recreation from the toils of our occupations,

and from the pressing cares of life. It should be innocent and elevate the mind; while it invigorates the taxed physical powers of the body by labor, or by care. The relaxation that indulges in over sleep, impairs the energies of the body, and if devoted to carousals, is debasing and destructive of happiness. By meeting on an occasion so connected with the interests of all as this does, we form new acquaintances with different conditions of society, or we renew those that have heretofore existed. We all meet upon a common level, and feel that the cord of dependence binds us together in common brotherhood. Here are no political, no sectarian divisons, no distinction between the rich and the poor; if these distinctions in this rural section of the country can be said to exist. The same object brightens the eye and rejoices the heart of each. The judgment of each is deliberately exercised upon the property or quality of every animal or thing that is brought here for exhibition. How can our time be more profitable employed in any matter confined to our present existence? Travelling is confined to a very limited number of our population. Few if any in this community mingle with the gaities and dissipations of the fashionables at the summer resorts, at the springs and watering places; and if any one not an invalid acting in good faith under medical advice has thus spent the summer, or any portion of it for the purpose of making a display by spending money, or to dispose of time that has hung heavy upon his hands, a revisit of home will be burdened by remorse, when reflecting that he has done nothing for the permanent benefit of himself or of his fellow men. Your time has been advantageously spent in preparing for this exhibition. Females have patiently and pleasantly toiled to manufacture something worthy of the occasion; and whether her offering shall be deemed to be the best, she has bestowed upon it the highest skill within her power, and the satisfaction she enjoys will only terminate with life. Contrast the past and present enjoyment at home, administering to the necessities and comforts of the domestic circle, or bending over the couch if sickness has prostrated an inmate of the household, or instructing the young in the first rudiments of learning, or impressing upon their tender minds their duties and responsibilities; or preparing something for this occasion, with the graphic sketch lately given of the closing fashionable scene at Saratoga, and its transfer to Newport, and congratulate yourselves that you are removed from participating in such scenes. The writer says: "To night *the ball* comes off at the United States, and to-morrow the beauty that has for the last four weeks lighted up the great

hotels, will be flying away to Newport, there to dance *the Lancers* with new zest and accustomed grace and joyousness. The Congres Hall, the Union and the United States, have each their band of music, and hops and balls, occupy every evening in the week, Sunday excepted. The inordinate pursuit of pleasure is not only exhaustive of the purse, but of the constitution, and an eminent practioner of New York, whom I met here, assured me it was killing off the entire race of up town girls."

Your happiness peers in your countenances. With us in the country, there are few, but religious occasions that bring the two sexes together in large numbers. Conventions, elections and military musters convene men in masses. Restaurants and gambling houses bring them together in smaller numbers for debasing, wretched and immoral purposes. I am for maintaining and enforcing women's rights as they are set forth and defined by the pen of inspiration, the only safe guide in morals and in religion. They have nobly, in several instances, lately abated the nuisances that have broken hymeneal pledges, sapped the peace and happiness of the fire side, and home—substituted rags for comely and comfortable garments—poverty for plenty, and misery for high domestic enjoyment. The judgments of the courts sustain them, and the courts should be sustained on this question, by public sentiment. As they have commenced a vindication of their rights, I hope they will not stop short of breaking up every gambling establishment in the land. Home should be made lovely by the display of the amiability and winning charms with which they are so bountifully endowed; and so well know how to exercise, as to alleviate the burdens of misfortune and adversity from what ever cause; but if these do not prevail, I am decidedly for the free and full exercise of that higher right they undoubtedly possess—to vindicate their own wrongs by removing the causes of the degradation and ruin of husbands, sons and brothers.

We have no mountain height to ascend, from which we can catch a view of winter and summer and enjoy the contrast. We have no sea, lake or ocean, to which we can resort—to witness and admire the energy and skill of oarsmen in the manly strife for supremacy at the regetta—but we possess that which excels them all in usefulness and enjoyment—the assembling together on this and on like occasions—seeing each other in health—in comfortable circumstances—contented with our condition and employment, and looking forward to the future with the hope of increased felicity and happiness. All are here, the old pioneer who came when this country was an unbroken wilderness, or in

the first stages of improvement, whose subsistance was packed on horses, or brought on the backs of men from Georgetown, whose salt was made at Onondaga, boated on Lake Ontario, and the Niagara river, carted around the falls, boated to Grand River, and drawn from thence, sixty five miles, through the mud. The man who drove the first wagon from Beavertown to Pittsburgh, on the north side of the Ohio—matrons who participated in all the hardships and privations of a new country, far distant from father, mother, brother, or sister—whose hearts never desponded—whose hands were not idle—who have lived to rear familes, many members of which are useful public spirited citizens among us; while others are in other States or in the territories, respected and beloved. Here are the middle aged, who have contributed their share for the time being, in clearing away the forest and in strengthening the social, literary and political institutions of the country. Here are those who have emigrated from foreign countries, and sought asylums here, to become with us one people. Here are the young on whom the hopes and destiny of the future rest. It is meet we should rejoice together and be glad, for the Lord has blessed us personally, socially, and politically. We inhabit a portion of the country that is equal to, if it does not surpass in beauty of formation, any I have seen. The streams for receiving the surplus water, and conveying it into what has been deemed to be heretofore "the father of waters," to the south, or into the Saint Lawrence at the north, have been so located by the Creator, that the summits of dividing ridges afford distant and pleasant landscapes; many of the ridges are such gentle swells as very slightly to interrupt the speed of travelling, and in no instance to dispel the plough, and yet, on their summits the traveler or other observer, overlooks fruitful fields, orchards and snug, comfortable houses, at distances from five to fifteen miles, having all or nearly all of them in view at the same time. The land in northern Ohio, is not as rich in its natural state, as it is in the Miami valley of the Ohio, or of the Scioto; but the whole of it is capable of the highest state of fertility, by applying the means at our command; and there are not five hundred acres of waste land in five millions of acres, and I do not know of a single acre, if the beds and precipitous banks of streams are excluded. It is not all of the same quality; some being better adapted to grass than grain, and some to pasture, than meadow. This equality of soil constitues in my opinion, one element of its desirableness. If one man does not flourish as well as his neighbor, it is because he lacks health, industry or skill.

There is no occasion for the existence of envy, jealousy, or discontent. Having no mountains, precipitous hills, or morasses, our roads are straight, and for nine months in the year they are unequalled for speedy and pleasant traveling. By a little labor and at a trifling expence, if each owner of land would line the side of the road with trees, the beauty of the country would be increased. Trees should be selected that would remunerate as well as adorn. The sugar maple would best suit some localities and soils; and the black walnut and white walnut, or butternut, others. "In Germany, chestnut trees are planted along the road sides, which yield the villages a large income, as their fruit is manufactured into starch. When America gets economical, our railroads will be lined in the same way;" not for the purpose of making starch, but to obtain a fruit, of which many, and most of children are fond; and it may be an article of profitable merchandise, if a surplus is raised. There are extensive sections of country at the west and south, where there is not a chesnut tree. Cities and towns are supplied from the mountains in Pennsylvania. We are well supplied with wood, water and stone. Lime stone is found in detached beds or ridges, in sufficient quantities for buildings, and for our lands.

Professor Newbury, in the description given of the middle division of the Ashtabula and New Lisbon railroad, from Niles to New Lisbon says: "In crossing the Mahoning at Niles, the railroad passes from a region agriculturally rich, but nearly destitute of valuable minerals into a district uniting to great agricultural resources an amount of mineral wealth unsurpassed, if indeed it is equalled by that of any other portion of our favored country, and which if properly developed, must sustain and enrich a large population."

This county possesses the greatest portion of the mineral wealth of the Mahoning Valley. This is the section of country, with its beauty, fertility and mineral wealth, that is ours. It is so situated between Lake Erie and the Ohio river, that whatever we have for market may reach New York, or New Orleans, or Pittsburgh, or Philadelphia, or Baltimore, or Cincinnati, or Cleveland by rail roads, and water communications connecting our locality with them. We have flourishing towns and villages, good roads, school houses and houses for public worship, so that the labor and money expended by those who were early settlers, or by ourselves for these objects no longer tax our income. The farmers and mechanics are generally in good pecuniary circumstances and clear of debt. Our advantages are certainly unusually great.

In Italy, one fifth of the land is sterile, and in France only one fifth is fertile, and here within the bounds of this society, there is not an acre of sterile land. Our farms however, are not as productive as they would be by a better state of husbandry. The organization of agricultural societies is to impart, and to receive information. The knowledge how to cultivate the soil is progressive, and in this as well as in other sciences, new discoveries are made. The language of an indenture when a farmer took a boy as an apprentice, formerly was: "I will teach him the art and mystery of farming."

It is an art to cultivate the earth skillfully, and it is a mystery that the earth, cold and wet as it is, should give nutriment to the trees of the forest, to the various kinds of grain, for the sustenance of man, to the grass of the fields for the sustenance of animals, to the most delicate flower, beautifying it with different hues and tints, and the richest colors.

Agricultural chemistry has greatly aided cultivators of the soil by giving them a better understanding "of the nature of plants, soils, manures and the laws of production. Sir Humphrey Davy first gave it the character of a science," towards the commencement of this century. It is not to be supposed that the great mass of the people will be learned in agricultural chemistry, or even have a knowledge of its principles as a science, but we should profit by the learning and experience of others. The most of us are unacquainted with the laws and principles of electricity; but when we want to send a dispatch with the greatest speed known to us, we resort to the telegraph office with the same confidence that Morse does, who first applied electricity as a messenger to do errands, and to convey news.

I think as a people, we are too much wedded to habits and customs—we do not keep up with the improvements in farming. All changes are not beneficial; but when we take up an agricultural paper or book, and find from well authenticated experiments made by different persons of high character for intelligence, truth and veracity in distant and different places, that a particular course of culture will produce an increased quantity of grain or grass, or materially improve their quality; we ought not as prudent, discreet persons, to refuse to adopt it. If we hear of an extraordinary breed of horses for the harness, or the saddle, or of a new and improved breed of cattle for work or the stall, we are not slow to obtain them to supercede the animals we possess of inferior kinds. We are strangely inconsistent.—Formerly, all grain was threshed by an instrument called a hand flail; but it is generally if not universally superceded by the

threshing machine; and so with various other labor saving machines. These we adopt, but if we are informed verbally, or by publications, that we must plough and manure our lands different from what we have been accustomed to do, and as we were taught by our fathers, we discard the recommendation as an innovation unworthy of our notice.

"Agriculture is the art of cultivating the earth in such a manner as to cause it to produce in the greatest plenty and perfection, those vegetables which are useful to man and to the animals he has subjected to his dominion. This art is the basis of all other arts, and in all countries coeval with the first dawn of civilization. Without agriculture, mankind would be savages thinly scatterred through interminable forests, with no other habitations than caverns, hollow trees or huts more rude and inconvenient than the most ordinary hovel or cattle shed of the modern cultivator. It is the most universal, as well as the most ancient of the arts, and requires the greatest number of operators. It employs seven-eights of the population of almost every civilized community. Ariculture is not only indispensable to national prosperity, but is eminently conducive to the welfare of those who are engaged in it. It gives health to the body, energy to the mind, is favorable to virtuous and temperance habits, and to knowledge, and to purity of moral character; which are the pillars of good government, and the true support of national independence."

The occupation is honorable, and the most distinguished men in this country have so esteemed it. Gen. Washington was a practical farmer, and during the war of the revolution, he was in the habit of directing his overseer whom he left in charge, what fields to cultivate, and how, with different crops. After peace was established, he returned to Mount Vernon and resumed his favorite occupation; and from thence until his death, he was in correspondence with the most distinguished agriculturalists in Europe; imparting and receiving information in the common affairs of husbandry, and rearing different kinds of animals for his plantation, or for sale.

"The ancient Romans venerated the plow, and in the earliest and purest times of the republic, the greatest praise which could be given to an illustrious character was, to say 'that he was an industrious and judicious husbandman.' The young men of this country will do well more generally to engage in cultivating the soil; and the females will find in their neat, well arranged houses, in their well cultivated gardens, producing choice vegetables and grapes, in their door yards adorned with evergreens,

shrubbery and flowers, in their lawns, in the pure air, and in the pursuits of rural life better health, more contentment and happiness than the fashions and dissipations of towns and cities can impart to an immortal and accountable being.

It is a rational, useful, virtuous life, and no female should underrate or despise it. As a general rule, we cultivate too much land for our means, so that we do not obtain as much grain as we might by bestowing our labor and fertilizers upon a less quantity of land. This is particularly the case with the land we plow and sow, or plant. We not only lose in the money unnecessarily expended for land, but a large per centum on our labor and seed. We are informed that in ancient times "a vine dresser had two daughters and a vineyard. When his oldest daughter was married, he gave her a third of his vineyard for a portion, notwithstanding which he had the same quantity of fruit as formerly. When his youngest daughter was married, he gave her half of what remained. Still the produce of his vineyard was undiminished. This result was the consequence of his bestowing as much labor on the third part left after his daughters had received their portions, as he had been accustomed to give to the whole vineyard."

We all find this apologue verified in the small quantity of land each cultivates in his garden. The vegetables from a garden of quarter of an acre furnish delicious food, and mainly supply our tables with esculents more than half of the year, and with cabbages, onions, beets, carrots and parsnips for a longer period; and we realize more from it to sustain life, than from two or three acres of field culture; and yet our gardens generally are not as well taken care of as they should be. If a field was manured and tilled equally well, it would be equally productive. We are not, generally, sufficiently skillful, prudent and careful in enlarging and preserving the manure heap. "Of all fertilizers, the most universal and most valuable to the cultivator, and yet the most generally mismanaged, is the farm yard manure which has often been described as the farmer's sheet-anchor."

M. P. Cato, the earliest agricultural writer—one hundred and fifty years before the birth of our Savior—gave instructions to have a large dunghill, "to keep your compost carefully; when you carry it out, scatter it and pulverize it, and carry it out in the autumn."

Our remissness in looking to the dungheap, and making heaps of composts, is probably owing to the fact that our country is comparatively new, and so long as we cultivated the virgin soil,

manure was not deemed to be necessary, and our log barns were temporary buildings and afforded limited, if any conveniences for systematic action in the matter. We are now without excuse in longer neglecting to put our land in a high state of fertility and cultivation. We make no use of guano, the common fertilizer of the middle States, and very limited use of plaster, although it is in abundance at Sandusky, and easily obtained in western New York, at reasonable prices. These articles require outlays of money, and my doctrine is, that we should manage and economise so as to make others our debtors instead of creditors; and as a general rule, we should use the materials at our command. All the straw and hay not consumed by the stock, and all weeds, broken bones and rubbish should be gathered and placed in the barn yard, commencing in an excavation that will retain the liquid, and upon that heap should be placed whatever has been thrown out of the stables during the winter or that has been gathering during the summer, and the clearings of pig-styes and hen-roosts. The different kinds of manure should be mixed as evenly as possible, and occasionally peat or earth should cover the heap. The heap should not be permitted to heat (to which horse dung is inclined) so as to be charred or burned in the center to a dry white substance, termed "fire fanged." In that state it loses from 50 to 75 per cent. of its value. Who has not lamented in traveling through the country, when seeing a heap of straw, the produce of a field, subject to be blown away by the winds, or if permitted to rot, to be of little value, the fertilizing gases having escaped. Manure should not be permitted to lie on the surface of the ground except it be carried out late in the fall or winter, and then not, if in situations that the drainage from it will flow off into streams. "Columella, the most learned practical writer on agriculture among the ancients, born at Cadiz, in Spain, lived about the middle of the first century, advised the cultivator not to carry out to the field more dung than the laborers can cover the same day." If I had not, within the last eight weeks, seen field after field, from five to fifteen acres, dotted over with small dung-heaps, exposed for days and weeks to the rays of a hot sun, frequently known to be near by the exhalations, before discovered by the eye, I should not have thought the advice of Columella at all necessary. Any person who should expose beer, cider, wine or other fermenting liquors in open vessels to the action of the air, would be judged by every other member of the community as wholly destitute of reason, and yet it is almost as common as it is to see a piece of ground to be cultivated in

wheat or rye, with the manure designed to fertilize it laying for days and weeks in heaps of a bushel each. Whoever has not from peat pits and barn yard sufficient to fertilize his land, may do it by plowing under oats or clover.

We have no lands here that are deemed to be exhausted, but they certainly do not produce as much of grain as they did for several years after they were put under the plow. The properties exhausted, being constituent parts of the grain, must be restored, and two powerful if not necessary agents for accomplishing it, are lime and plaster or gypsum. The Hon. John M. Clayton, lately of the State of Deleware, purchased, several years ago, an impoverished farm of about four hundred acres, five miles from New Castle, commanding a view of the Delaware river. He purchased lime from Schuylkill county, in Pennsylvania, at twenty-five cents per bushel in the stone, delivered at New Castle. The hauling from New Castle was in wagons. After limeing he stocked down with clover, on which he sowed plaster, and at a proper time, having respect to its growth, the clover was plowed and turned under, and winter grain sowed. The farm yard was closely attended to, and its contents returned to the earth, and by following the course briefly indicated, in a few years he had a farm not excelled for fertility in Delaware, if in the United States. My belief is, it is the most productive farm I ever saw. It is now owned and cultivated by James C. Douglass, his nephew, who is a model farmer.

Geo. W. Cummings, at Smyrna, Delaware, purchased an exhausted farm of two hundred acres. It had been rented for two-fifths of the corn the tenant raised, and the quantity the landlord received, was thirty bushels, on a field of thirty-one acres. By the use of lime and plaster, and plowing under green oats and clover, the average of his wheat in a comparatively short time was twenty-five bushels to the acre, and of his Indian corn, from forty to fifty bushels to the acre, without the use of barn-yard manure. Lime decomposes the vegetable and animal substances in the land, thereby enriching it by gases. It destroys grub and other worms, and converts their remains into manure. It so operates upon hard clay land that it pulverizes easily when stirred by the plow, harrow or hoe. If we consult our own interests, we shall lime extensively. It is to be observed that if the land is exhausted, a smaller quantity of lime should be used, than when possessing much vegetable matter.

"The chemical uses of lime to vegetation may be conveniently divided into two heads, first its direct action upon vegetation;

and secondly, its chemical operation on the matters contained in all cultivatable soils."

It is found by chemists, that all vegetables partake of lime, but varying in degree. After a series of years, that necessary ingredient is exhausted by cultivation, and must be restored.—If the land contains lime pebbles, as in the upper part of Indiana and the lower part of Michigan, in the burr oak county, deeper plowing brings the pebbles and fine particles of lime towards the surface, and supplies the deficiency. This is evident in the change of the color of the earth, which when first exposed is a light yellow; but after being brought to the surface and exposed to the influence of the sun and air, it is as dark as chocolate or burnt coffee. Our heavy clay lands possess some lime, as is seen in the incrustation of tea kettles; and although not in sufficient qantity, a kind Providence has supplied the country bordering on the waters flowing into the Mississippi, with lime stone in ridges and in the beds of some of the streams. I think there are no lime stone ridges on any water running from the south into Lake Erie, east of the Huron. The lime stone is found within a short distance west of that river in abundance.

The land north of the 41st degree of north latitude in this State, is not generally as productive in wheat, as that south of that line. There are some exceptions, but generally north of that latitude is better adapted to grass than grain. We ought however, to raise grain enough in every township, for the home consumption of man and beast.

The quantity of grain must necessarily vary according to the season, under the same kind of culture, as drought and wet, heat and cold, vary. The valuable Ohio statistics show that the quantity of corn in Ohio, in 1849, was greater by 1,276,180 bushels, than in 1856, seven years afterwards, and that the decrease from 1855 to 1856, from unusual occurrences, was 29,784,919 bushels of wheat and corn. The quantity of wheat in 1850, was greater than in 1856, by 16,069,163 bushels. The quantity in this part of the State will be less than in 1856, from the combination of three causes: first, the kind of wheat sown; second, the wet weather that caused the rust; and third, midge, or red weevil. Several years ago, the Mediterranean wheat, so called, was introduced into this country. Its name was probably derived from its having been brought from some part bordering upon the Mediterranean sea. It was earlier in ripening than the wheat we had before cultivated, and escaped the rust; its stem, or straw was nearly solid to the second joint above the root, and the Hessian fly could not penetrate it. The stem or

straw, was stronger throughout than other wheat, and less injured by rains and wind. The bran and flour being darker than the other kinds we had cultivated, this kind of wheat last year was not the favorite of millers and they made a difference in the price per bushel of from ten to fifteen cents; many of the farmers from that cause sowed last fall, wheat more popular in the market. The consequence has been in many instances with us, the entire loss of their crops. Extensive cultivators of wheat in Virginia and Delaware, told me several years ago, that the Mediterranean wheat was preferable to any grain they had sown; and the Hon. Aaron Marlan an extensive farmer in Green county, near Xenia, in this State, gave it as his opinion last year, that its cultivation in Ohio had enriched the State millions of dollars. My efforts for some months, have been to ascertain the port from whence the seed was imported, without success. There undoubtedly is enough of this wheat in the country, but changing seed of all kinds is highly beneficial. Permit me to suggest to you, it is important for us to save the seeds of whatever we sow, or plant in the field or garden. The earliest and most perfect heads of wheat, rye, oats, barley and other grains should be selected in the field, before the cradle or sickle is used. Mr. Johnson, a distinguished farmer in New York, in a late publication expresses the opinion that the farmers would be greatly benefitted and enriched, if a wheat could be obtained that ripened four days earlier than the kinds now propagated; and if ten days, it would be invaluable. By selecting the heads of grain that come to perfection soonest, that object would be attained after a few years.

Seed of Indian corn should be selected from the best part of the field, taking the best ear on a stock that bears two, or more ears, strip off the outer husks, braid the inner husks with the ears attached, and hang the string in the garret, or where the corn will be secure from injury or destruction. The earliest and most perfect cucumbers, tomatoes and other garden vegetables, should be saved for seed. If these suggestions impart no information, I ask whether they have been practiced? If the affirmative answer should be given, a publication of the result is of public concernment; and it is worthy the consideration of all who consult convenience, or profit, who have not saved seeds in the manner here advised. Many choice seeds have been distributed from the patent office; but in purchasing, the most careful agent is liable to be deceived in the quality of the seed; the quantity of each kind being great, and he can have no knowledge of the quality, except by the representation of the

sellers. One great leading principle should be, to purchase nothing we can raise or make, as cheaply as the vender can afford to sell.

By the census of 1850, the average quantity of grain per acre in Ohio, of wheat, was 12 bushels; of rye, 25 bushels; of Indian corn, 36 bushels; of oats, 21 bushels; and of potatoes, 75 bushels. We should, and might raise double of each kind, by good husbandry.

During the existence of the Trumbull county agricultural society, to which I have referred, Mr. Robert Pow, an English farmer, the tenant of Comfort S. Mygatt, raised a mile east of the centre, on the north side of the road to Boardman, on what many will recognize by the name of Johnson hill, a very trifle short of two hundred bushels of ears to the acre, which was over one hundred bushels of shelled corn. This extraordinary crop for this section of the country, was not owing to the native richness of the soil, but to English cultivation; and every extra dollar expended in labor, or manure, realized two dollars in profit. The fertility of our fields may be greatly increased by deeper plowing, and draining. A plow lately brought into use with us, called the Michigan plow, is highly servicable to form a deeper soil. Our various kinds of grains and grasses flourish best, when their roots have an opportunity to expand, and to strike deep into the earth. A hard surface restrains them, and prevents them from obtaining and communicating the food necessary for the growth and perfection of the plant. A shallow soil prevents the water from sinking that does not flow off, and the roots of vegetables being near the surface are drowned if the weather is wet, and if dry, the ground becomes hard, and vegetation scorched. The earth derives much of its fertility by being brought in contact with the air, the genial rays of the sun, and rain water. Deep plowing contributes, to this acquisition. The subsoil plow has been very advantageously used in close soils. It has no mould board, and of course does not turn the earth to the surface that it loosens. It follows a common plow and breaks the earth deeper. The Michigan plow does the work of both, but with this disadvantage in some soils, that the hind share and mould board cut, and turn the sub-soil to the top, which in many fields, should at first be avoided. The principle of this plow is not new, for I find that as early as 1677, "an ingenious young man of Kent, had two plows fastened together very firmly, by which he plowed two furrows at once, one under the other, and so stirred up the land 12 or 14 inches deep." Our fellow citizen and co-laborer, Mr. David Haines of

Boardman, who sets so good an example in farming, and whose labors are so bountifully rewarded by the skill he exercises, is trying an experiment this season, which if it succeeds, and I see no reason why it should not, will be of great importance to the country. After taking a heavy crop of hay from a meadow, he ploughed it with his Michigan plow into lands without head lands. Between these lands is a drain, the result of turning the last two furrows in opposite directions, and there being a descent from the middle of each land to each outer edge of it, the water runs into the drains mentioned, and the ground descending slightly to the south, (the course of the furrows,) all the surplus water runs off. The plow buried every vegetable. On the top of the furrows, as they were left by the plow, he sowed his wheat, covered the ground with well rotted barn yard manure, and applied the harrow thoroughly. I visited Mr. Haines to see this cultivated field, and the appearance exceeded my expectations. The sod is light, and although the ground was very level before it was plowed, and inclined to be wet, there is not a lump of hard earth to be seen. If he succeeds in raising a good crop of wheat, this course of culture to a considerable extent, will supercede summer fallowing, and possess three advantages over the present mode. First—No loss of a hay crop. Second—No exhaustion of the land by bare summer fallowing. Third—No accumulation of weeds and seeds, which are almost inseparable from summer culture. One great advantage of this section of the country is, that the same field may be mowed, pastured, or plowed.

Mr. Frank Henry, of Austintown, known to most if not to all of you as a skillful, enterprising farmer, was kind enough last fall to tender to me the use of his Michigan plow, to prepare a field of about eight acres for corn, that had laid some years in pasture, and was nearly denuded of grass. The plowing was arrested last fall by cold weather, and was finished this spring by a similar plow made by Mr. Fellows of Youngstown, an excellent implement. The expressed opinion this spring and the fore part of summer, was so general among farmers in this quarter, that corn would not grow upon land the first season so deeply plowed, that the stout heart of Col. Platt yielded to the popular sentiment, and he doubted whether his labor in planting it might not be lost. The land plowed last fall is the lowest part of the lot; but was in a condition to be planted this spring a week earlier than the other, and now has upon it the stoutest corn. A part of the field should have been drained, and as the water stood upon it before and after planting, the corn there

is not very good. A stalk was brought home on the 11th of September, that was fourteen feet nine inches high, bearing two large ears of corn; the first, seven feet nine inches from the ground to the bottom, and the other eight feet four inches from the ground to the bottom of the ear. Ground was formerly prepared for corn by ridging; and I regret to observe the mode is superceded by furrowing. My opinion is, that if the former mode had been observed last year, or this, that in each, the quantity of corn on the Reserve would have been greater by half a million of bushels. Ridges drain off the water, invite the earliest planting, and furnish fine light soil for the plant.

Sorghum cane.—As the population increases, and the facilities for transportation multiply, a kind Providence provides for us the means for obtaining the articles necessary for our subsistence, or to promote our comfort and happiness. Sugar or molasses, or both are necessary for the better enjoyment and health of the rich and the poor. That same bountiful Providence in the early settlement of this country when transporting from the east the quantity of sugar and molasses needed, was an absolute prohibition, enabled us to obtain these necessary articles by resorting to the hard maple. As the forests yielded to the axmen, a partial supply was furnished from Louisiana. The foreign and domestic supply was, however, so limited, that within a short time past, a few men in New York, who care more for the almighty dollar than for the bodies of their fellow men, were enabled to effect the market by hoarding up these articles from sale. Bonaparte when in power, not having a supply of sugar from the islands and dependencies of France, encouraged the cultivation of the sugar beet, and the last report I have seen informs us that there is yearly made from it 352,000,000 pounds of sugar.

There was imported into the United States last year the enormous quantity of 774,931,815 pounds of brown sugar, of the value of..... $42,614,604

Of white clayed, or powdered, 1,218,184 pounds of the value of..... 86,820

There was exported of brown sugar, 12,168,659 lbs., 884,593

And of clayed or powdered, 456,712 pounds,..... 46,017

Leaving for consumption of brown sugar, 762,763,156 pounds costing $41,730,011

Clayed, 761,472 pounds costing..... 40,803

Being of both kinds 763,524,628 pounds, costing... 41,770,814

The estimate quantity of sugar made in Louisiana in 1855, is.....254,569,000 pounds.
In Texas,..... 9,887,900 pounds.

264,456,900 pounds.
Exported of domestic brown sugar,..... 2,196,412 pounds.

262,260,488 pounds.
There was also exported of domestic refined 3,141,835 pounds.

Leaving for home use,.....1,022,643,305 pounds.

Not knowing the wastage in refining, this aggregate will be a little over rated; but for all practical purposes, the result may be stated as follows:

Imported sugar consumed in the U. S.,..763,524,628 pounds.
Domestic sugar of the Southern States,...259,118,677 pounds.

259,118,677 pounds.

The reported quantity of molasses made in Louisiana in 1855, was 23,113,620 gallons.

There is no doubt as a people, we require a great deal of sweetning; and if we could be better disposed towards each other by the use of more saccharine, it would be well if one of our large streams was converted into sugar and molasses.

At this juncture when consumption increases, and renders it probable that the poor will be restricted in the use of an article making a part of their daily food, and necessary in time of sickness, the Chinese sugar cane a vegetable heretofore unknown to us, is presented for cultivation to supply all deficiencies. It is grown as easy as Indian corn in latitudes where both are cultivated.

George W. Kendall, formerly from New Orleans, and now an extensive farmer in Texas, in a late letter to the New Orleans Picayune, says: "There is to be no want of corn in western Texas, for every field which escaped the ravages of the grasshoppers, is yielding abundantly, and many localities escaped these pests entirely. The crop of Chinese sugar cane, which laughs at grasshoppers and droughts, is at the same time immense. Some of my neighbors are having it ground, and making bread of it, speaking of it in commendable terms, while everywhere they are preparing to grind the stalks, and convert the juice into syrup or molasses. That this is to be a valuable addition to our crops in this section, there can be no doubt; it

stands a drought better than any other plant—is no more effected by dry weather than is a Salamander by fire. The grain makes a good article of bread, so many say; the leaves make an excellent fodder, while the stalks can be converted into molasses, and perhaps sugar—nothing is lost. I have often heard it stated that the grain is hurtful to horses, and this may so; yet if any one has any of it to spare, I am willing to feed it out to my work animals as an experiment, and will run all risks of its injuring them. In fact, I fed out no inconsiderable quantity of it last year, and would have used it more freely, had I had it to spare. A bushel of it weighs some forty-eight pounds, or eight pounds less than a bushel of corn. We have not yet learned all its uses."

We should be satisfied from this gentleman's experience that the plant is not poisonous as some have averred. That it is valuable for making sugar, is equally clear. When in attendance last winter at Washington, at the national agricultural society, I was informed that some persons decried the sorghum cane the better to introduce another kind. There is no use in theorising on the subject, the syrup has been crystalized in a great many instances. D. J. Brown, Esq., an efficient agent of the patent office, and to whom the country is greatly indebted for the seeds he obtained, and distributed, and the information communicated to the public, says: "The proportion of the saccharine juice of the beet root of France, is only about half as much as that of the cane, and is mixed with substances more difficult of separation, and more injurious in their reaction."

The agricultural report of the patent office in 1855, contains the statements of different persons in distant sections of the United States, commending the plant as being highly useful for the farmers to cultivate. Each farmer may not make sugar for the want of skill and experience, but he may transport his cane to an establishment for making molasses and sugar, as he resorts to a grist mill to procure his grain ground into flour, or to a saw mill to have his logs converted into boards. The plant is a great acquisition to the country, and being manufactured into molasses and sugar, the prices of these articles, whether imported or produced in Louisiana and Texas, will be reduced and regulated. Its withstanding the drouth, frost and grasshoppers, greatly enhances its value, whether cultivated for manufacturing purposes or for stock. If steamed in the winter, Mr. Clapham, of Suffolk county, New York, says, "that horses, oxen or cows, will commence eating at the end of a stack, and not leave it until entirely consumed."

Making sugar in Chester county, Pennsylvania, from the Chinese cane last year, was entirely successful, and a farmer writing from there in February last, says: "The middle States of this Union are to become, ere long, the greatest sugar producing country in the world. The experiments already made in this immediate neighborhood, which have been numerous, have proved that three hundred gallons of syrup can very easily be made from an acre of ground." The sugar refiners give for the syrup from twenty to thirty cents per gallon. The expense of cultivation is the same as that of Indian corn, and estimating in his calculation that an acre of corn would yield fifty bushels, he shows that the gain in cultivating Chinese cane, instead of corn, will be to the farmer $94.50 per acre. Having made his calculation on the basis mentioned, he deducts 25 per cent. for the difference between theory and practical results, and makes the clear profits per acre to $70.87, and then propounds the question: "Will the agriculturalists of the middle States not adopt at once the sugar culture for the corn crops?" and says "if they are wise they will do so."

Labor should be diversified and applied to objects that promise fair and reasonable remuneration. Many of the objects were not anticipated in their magnitude a few years ago. The manufacturing of iron here was not thought of, when the Juniata iron was used for all domestic purposes for which the article is applied, for we did not know we were in a mineral iron section, that in quantity and quality favorably compares with the best known to minerologists and to geologists in the United States, and that our coal was unsurpassed. It is in such abundance, and so pure, as to be already an article of extensive commerce, the future extent of which, no finite mind can grasp.

The establishments for manufacturing iron, although in their infancy, furnish markets for many articles the farmers raise and for the animals he rears, which will increase with the extension of converting useless coal and ore as they lay in the earth, into articles of merchandize, enriching the manufacturer and the country. Benjamin Franklin, that wise, plain, honest countryman of ours, who brought lightning from the clouds and electrified cabinets and monarchs, of whom Chatham, on the 1st of February, 1775, in the House of Commons, spoke as that great man, "one whom all Europe held in high estimation for his knowledge and wisdom, who was an honor, not to the English nation only, but to human nature," in a letter dated at London on the 22nd of April, 1771, which has lately been published, said to Humphrey Marshal, of Pennsylvania, "Every manufac-

turer encouraged in our country, makes part of a market for provisions within ourselves and saves so much money to the country as must otherwise be exported to pay for the manufactures he supplies. Here in England, it is well known and understood that wherever a manufactory is established, which employs a number of hands, it raises the value of lands in the neighboring country all around it, partly by the greater demand near at hand for the produce of the land, and partly from the plenty of money drawn by the manufacturers to that part of the country. It seems, therefore, the interest of all our farmers and owners of lands, to encourage our young manufacturers in preference to foreign ones."

Profiting by the advice of one so eminently qualified to give it, as well as by our own experience and observation, we ought to sustain, as far as we can, all the gentlemen who have engaged in the manufacturing of iron, or who are opening coal mines, or who have established or shall establish among us mechanic arts.

Our foreign importations for the year ending June 30, 1857, amounted to		$360,890,141
Of this was exported	$23,975,617	
Of specie	12,461,799	
		36,437,416
Leaving for home consumption		324,452,725
Exportations exclusive of specie		278,906,713
Leaving the people indebted, exclusive of the exportation of specie		$45,546,012
Of said sum of $278,906,713, of agriculture, there was only		$16,736,458
And of vegetable food, only		58,333,176
		$75,069,634

Mr. Franklin, in the same letter, said: "If our country people would well consider that all they save in refusing to purchase foreign gew-gaws, and in making their own apparel, being applied to the improvement of their plantations, would render those profitable as yielding a greater produce, I should hope they would persist resolutely in their present commendable industry and frugality."

Many fields, if they are not on every farm within the bounds of the society, would be more productive if under-drained.—Expenditure of money for this object in England, has been deemed to be of so much national importance as to attract the

attention of Parliament and by the III. and IV. of Victoria, "land owners possessing only limited interests in estates, are empowered to raise money by way of mortgage on such property to be employed, for the purpose of improving them by drainage, and the government has promoted the use of drain-tiles, by exempting them from duty." There is a very valuable article on this subject in the patent office agricultural report for 1856, from the pen of Henry F. French, of New Hampshire. This subject alone might profitably occupy the time allotted for this address, and not be exhausted. Very brief extracts from that report will contain the most that will be said in regard to it at present. A committee on draining having been appointed by the State agricultural society of New York, it made a report in 1848, in which they assert that "there is not one farm out of every seventy-five in that State but needs draining—yes, much draining—to bring it into high cultivation. Nay, we may venture to say that every wheat field would produce a larger and finer crop, if properly drained."

Mr. Delafield, one of the most distinguished agriculturists of New York, said in a public address: "We must under-drain all the land we cultivate, that nature has not already under-drained, and we shall cease complaints of the seasons. We shall seldom have a season, upon properly drained land, that is too wet or too cold, or even too dry. for thorough draining is almost as sure a remedy for a drought as for a flood."

The advantages of thorough drainage, are: first—it deepens the soil; second, it allows pulverization; third, it prevents surface-washing; fourth, it lengthens the season for labor and vegetation.

In the annual report of the secretary of the board of agriculture of the State of Maine, for 1856, a good illustration of the last benefit is given: "Mr. B. F. Nourse, of Orrington, plowed and planted with corn a piece of his drained and sub-soiled land in a drizzling rain, after a storm of two days. The corn came up and grew well, yet this was a clayey loam, formerly as wet as the adjoining grass field, upon which oxen and carts could not pass on the day of this planting, without cutting through the turf and miring deeply."

Mr. Yeomans, of New York, in speaking of draining, says: "The ground becomes almost as dry in two or three days after the frost comes out in the spring, or after a heavy rain, as it would do in as many weeks before draining." Fifth, it prevents freezing out. This has been most satisfactorily proven by Mr. John Johnson, of Seneca county, New York, who has very ex-

tensively drained. His soil is clayey, but his clover and wheat roots remain in the ground where they were, before draining, thrown out. Sixth, it arrests injury from drought. The ridge south of Lake Erie, distant from one to eight miles, is composed generally of sand, several feet deep through which the water sinks. In dry seasons the crops on it are fresh and green, when on the clay lands in the neighborhood and in townships south, many feet higher, they are damaged by the drouth, and sometimes nearly destroyed. In a deep soil, whether artificial by draining or natural, the roots run down beyond the deadening influence of the sun, and obtain nourishment that wet or hard land does not furnish. The secretary of a legislative agricultural meeting at Albany, in January, 1855, when the drouth of 1854 was under consideration, stated "that the crops upon drained, were far better, generally, than those upon undrained lands in the same locality, and that in many instances, the increased crop had been sufficient to defray the expense of the improvement in a single year." Similar reports were made from the counties of Allegheny, Chatauque, Clinton and Montgomery, and such has been and will be the statements from all other localities where draining has been or shall be practiced. We must not resist the concurrent evidence on this subject, and as we desire to make the most by our labor, we should commence a regular system of under-draining.

The mode of doing it will be regulated by circumstances. A person having the ready means, will do well to make or purchase draining tiles. They are as easily made as brick, and the clay that is good for the one, is suitable for the other. Small stones gathered from the surface of our fields, that are nuisances where they are, or large stones lying loose or taken from the quarry and made small, are valuable for the purpose. If neither can be obtained, poles or brush can be, and will last several years. A part of Olmsted, in Lorain county, was reputed to be, in the early opening of that section of country, too wet for profitable cultivation. Some years ago, several foreigners purchased, and made under-drains by using poles or brush, and I was told that the most flattering anticipations were realized in different crops of grain as well as grass.

We should breed, in the northern part of Ohio, such horses and horned cattle as will command ready sales and the highest prices in the eastern markets. Many years after the settlement of the country west of the Allegheny mountains, merchandize from the east to supply the wants of the west and south-west, and productions of the west and south-west, were transported

east in wagons, known by the appellation of Pennsylvania wagons, drawn by four or six large, noble-looking horses, from sixteen to eighteen hands high, well limbed, and proportioned for heavy loads. Their gait on the road was a walk, generally. It was a grand sight to see a long line of these vehicles, with their motive power, moving towards their places of destination. During the war of the Revolution, supplies from the middle States were conveyed to the east in Pennsylvania wagons, and by the representation of people of that day, they attracted as much attention and admiration, as railroad cars or steamboats and ships do at the present. As the services of that kind of horse are superceded on the road by the improvements of the age, horses of more activity and speed are adapted for the uses to which they are subjected. At this time, turf horses are not the kind we want for domestic service or the eastern market; and where their breeding has been the primary object, the horse has deteriorated for common use. England for a time sent to Ireland for horses for the farm and roads, and when stages were in general use for carrying the mails and passengers in the southern Atlantic States, contractors sought for the horses bred in New England.

A pair of horses purchased last year for the Emperor of France, proved so satisfactory that he ordered three other horses to be purchased and sent to him; two were obtained in Massachusetts, and one in Vermont, and they were shipped from New York recently.

In early times, Mr. Kline, of Youngstown, brought from the east a horse called "Messenger," an improved breed, and Gen. Wadsworth purchased a descendant of the Dey of Algiers, that Gen. Eaton, the hero of Derne, imported from Africa, on the the Mediterranean. These horses were valuable acquisitions for this sections of the country, as others were for their particular localities. Much attention has been paid in Kenucky, to breeding horses, and farmers here should look well to the stock they select, whether for use or sale. The United States census of 1850, reports the number of horses in this county to be 6,587.

A large amount of money is invested by us in neat cattle, and it is of great importance that we raise the best for the purpose to which we apply them. Those who make the dairy a principal object, should obtain cows that give the most, and the richest milk. The short-horned, or Durham breed, has been with us the favorite for milk and beef for several years past. In England, in the counties of Durham and Yorkshire, the short-horned

stock was for ages highly esteemed as milkers; but the description of these cattle in the Farmer's Encyclopædia, leaves no judge to doubt they were not originally profitable for the stall or yoke: "They were generally of large size, thin-skinned, sleek-haired, bad handlers, rather delicate in constitution, coarse in the offal, and strikingly defective in the substance of girth in the fore-quasters." Improvement commenced by judicious crossings, more than a century past; and in 1810, the bull Comet, was sold for 1,000 guineas. The improved stock are celebrated for milkers and for readiness of fattening.

In 1803, Judson Canfield sent a red bull, three-quarter blooded, of the Holderness stock, to this township, which probably was the first of the improved blooded animals of the ox kind sent to Ohio. "The stock of cattle was improved here, at Smithfield or Vernon, where he was kept for some years, and in some degree the improvement was evident throughout this section of the country. Subsequently other blooded bulls were obtained, and the quality of the cattle, it is hoped, is not depreciated. They have ranked very high for beef, by the graziers and butchers in eastern Pennsylvania and Delaware. As the Durham breed was originally defective in formation, for beef and the yoke, great care should be observed in the cross, to avoid the former defective points. An objection existed in the west against short-horned cattle for the eastern market, because when dri en on foot, the per cent. of wastage was greater than in other stock; but this objection no longer exists, as the drover finds it for his interest to avail himself of the railroads to take his cattle to market. It was stated in the Cincinnatti Gazette, the fore part of this year, that George Renick, living in Chillicothe at the date of the publication, drove the first lot of cattle that ever crossed the mountains to an eastern market, in 1804–5. Frederick Wadsworth, Esq., of Akron, formerly of this town, son of the late Gen. Wadsworth, seeing the publication, wrote to me in May last, that in the fall of 1804, Captain Jonathan Fowler, of Poland, took to the Philadelphia market quite a large drove of cattle. A part of the cattle were purchased of Gen. Wadsworth, James Doud, and others in Canfield.

Seventy thousand head of cattle are annually sent to the eastern markets from the State of Ohio.

In a late communication to the Summit Beacon, Mr. Wadsworth states that George Stillson, of Boardman, in 1803, took a load of about 800 pounds of cheese to the Pittsburgh market; that he commenced his sale at 16⅔ cents per pound, as purchasers applied; that the article was so much sought after, he sold

the last on hand at vendue, for from 25 to 37½ cents per pound. Mr. Wadsworth compiled from the census returns of 1850, several valuable statistical tables, and by one of them it appears that the quantity of cheese made on the Reserve in that year, was 18,704,894 pounds, which shows the increase of this branch of industry.

I can only present for your consideration the improvement of sheep. In the early settlement of this section of the State, it was apprehended that the land was too wet for sheep, and no more were kept than were necessary to furnish wool for domestic use. The restrictive acts of the general government and the war of 1812, arrested the lawful importation of goods from Great Britain, and the farmers were obliged to resort to manufacturing woolen articles for domestic use. Sheep were healthy, and those purchased in Pennsylvania, principally in Washington county, in the course of the first season increased in weight from 25 to 33 per cent. in the hands of judicious farmers. The price of wool has been remunerative for some years, for exportation from the State, and the breeding of sheep has been one source of wealth to many.

Although we cannot compete in raising hogs, with the farmers in the Vallies of the Scioto and Miami, and with those where corn is more extensively cultivated, we should select the most improved breed to supply pork for family use. In traveling through the country, I have seen very few animals in better condition than the hogs.

Our poultry yards may be profitably extended. The flesh of fowls is always relished by the family and guests, and at festivals in the country, it frequently constitutes a dish. Housekeepers would be compelled to omit many nice articles of cookery, if deprived of eggs; but the egg trade at the west, since the construction of railroads, is one of importance and profit. The shipment of eggs from Wooster, in a month, as lately published in the Republican, was 115,200 dozen. The Buffalo Express estimates the value of eggs in the United States, at 8 cents a dozen, to be $121,666,666. The New York Post estimates the eggs, at the New York prices, to be of the value of $259,011,666.

Eggs formerly were not deemed to be, with us, an article of much value except for family use, and if a merchant would take a dozen for a little sewing silk, he was spoken of as very accommodating. The present amount of this trade admonishes us to waste no article because it is singly of little value. The Scotch aphorism, that "many a mickle makes a muckle," is sound doc-

trine. The most extensive breeder of hens in the world, is M. DeSota, of France. The number he wintered the past year, was about 100,000. He has cleared his establishment of Shanghais and Cochin Chinas, and breeds only from the common barn-yard species. In the months of September, October and November last, he sent nearly a thousand dozen of capons to Paris. The number of hands employed, is about one hundred. His sales of eggs per week, the past winter, averaged about 40,000 dozen, or $260,000 yearly. His expenses of every kind are about $75,000, leaving a balance in his favor of $185,000. "He never allows a hen to set. The breeding-rooms are warmed by steam, and the heat is kept up with remarkable uniformity to that envolved by the female fowl during incubation." He feeds large quantities of flesh chopped up, and the grain is boiled. I do not suppose that any one will attempt to rival M. DeSota, but every farmer may provide more comfortable places for his hens than to have them sheltered in open out-buildings and barns; and additional attention and food will be more than remunerated in the additional profit.

When our minerals shall be fully developed, and the manufactures established, that will convert them into articles of merchandize, a market will be found at our doors for many productions of our gardens and farms, that are now of little value; and thereafter new sources of wealth will be opened for the employment of our capital, labor and skill. It is within our power with blessing of Providence, to make this section of the country the most pleasant of any in the same latitude, and the most desirable for a person not ambitious to obtain great wealth, but who seeks a home where the climate is favorable for good health, where the soil by good husbandry will meet his reasonable anticipations, where excursions, in any mode of traveling are not excelled in beauty, where schools and seminaries of learning abound, where the different denominations of christians live in harmony, and in charity, opening their doors to all, where immorality is generally discountenanced, and where the hand is warmed by genial, kind and sympathizing hearts.

The value of agricultural products of the United States for the year 1850, was 1,299,197,682 dollars, which far exceeds the whole commerce of said States, and yet, a mere pittance has been appropriated to sustain agriculture, when the public money is liberally appropriated to protect and enlarge commerce.—President Washington was a farmer, and knew what was necessary for the great agricultural interests; and in his message of

the 5th of December 1796, he recommended the establishment of agricultural boards composed of proper characters, charged with collecting and diffusing information, and enabled by premiums and small pecuniary aid, to encourage and assist a spirit of discovery and improvement. At the conclusion of the subject he said, "experience accordingly has shown, that they are very cheap instruments of immense good." The same subject has been presented to Congress, and recommended by several of the succeeding President. When your zealous, industrious and able representative, *farmer* Newton was in Congress, he made a speech on the homestead bill, on the 20th of April, 1852, in favor of establishing an agricultural bureau, which contains more valuable historical information on the subject of an agricultuaal institution, than any speech of that day, that has fallen under my observation. It is worthy the perusal of all, and it shows how watchful he was of our interests, when discharging the trust confided to him.

At the last session of Congress, the Hon. Justin S. Morrill of Vermont, reported a bill to make donations of land to each State in the Union, of 20,000 acres for every senator and representative, to endow and maintain in each, a college, when the leading object shall be without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture, and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. The land not to be sold for less than $1,25 per acre, and the fund to be exclusively expended for the purpose mentioned above. The bill most effectually and prudently guarded against all frauds, and improper uses of the fund. It passed the House of Representatives on the 23d of April last, 105 voting in the affirmative, and 100 in the negative. In the Senate, the bill was definitely acted on, and remains on the list of unfinished business, to be taken up at the next session. Some senators entertain the opinion it will pass the Senate by a small majority. If the bill had become a law, the quantity of land granted to the State of Ohio, would be 460,000 acres, The benefit would be incalculable to our industrious, laboring young men who might now, or hereafter propose to obtain an honest livelihood by cultivating the earth, or by learning a mechanical profession if this donation had been, or should be made. Congress has squandered large tracts of the most princely domain of land, that any nation ever possessed; but a proposition to benefit the farmer and

mechanic, and the young man with limited pecuniary means, is resisted, and hangs on a doubtful issue. If the country should be invaded, or if a call upon the militia should be made to chastise the wrongs inflicted by an adjoining foreign power, these are the very men the government would appeal to; and their patriotic devotion to the country, is equal to emergencies of the kind. Gentlemen, find a provision in the constitution to appropriate money to search for Sir John Franklin, and the remains of Adam will be as soon found; but when the proposition is to disseminate intelligence to the laboring classes of the people, constitutional objections are interposed, or gentlemen are horrified by the expense. A small appropriation to purchase and distribute seeds, was resisted by sarcasm and ridicule.—Fellow-citizens, your attention is invited to this subject, as the remedy is in your hands. Act upon no party principle, but unitedly, and you will obtain what Washington esteemed to be, "of immense national benefit."

Although our crops are not as abundant as they have been in most of the past years, it is to be hoped that we have, or can obtain enough of the saff of life at moderate prices, to supply the wants of all among us. The maturity of our corn is an occasion for thankfulness. The harvest in England, is said to be abundant, which is highly favorable to the poor in this country, as the demand for exporing grain will not be so great, as it otherwise would be.

We should promote the happiness of each other, by cultivating those kind, sympathetic feelings that bring us into union, and prompt us to be good neighbors, friends, and citizens.

This book should be returned to the Library on or before the last date stamped below.

A fine of five cents a day is incurred by retaining it beyond the specified time.

Please return promptly.